

ABSTRACT

DISSERTATION/THESIS/RESEARCH PAPER/CREATIVE PROJECT: An Analysis of the Effects of a Five-Day Professional Development Experience on In-Service K-12 Teachers' Content Knowledge and Self-Reported Confidence in Their Ability to Teach Astronomy Content

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This study investigated the effect of a 5-day summer astronomy institute on K-12 in-service teachers' content knowledge in astronomy. Sixty teachers voluntarily completed a pre and post Test Of Astronomy STandards (TOAST) assessment instrument and supplemental information survey. Analysis of the data indicate that the elementary and middle-school teachers who participated in the workshop lacked sufficient astronomy content knowledge and self-reported low confidence in their ability to teach astronomy content. Elementary and middle school teachers' content knowledge, and self-reported confidence, was positively influenced by the professional development program. By comparison, high school teachers scored higher on both the pre and post assessments and self-reported confidence to teach astronomy content. Implications of these results on future professional development opportunities are suggested.